

REMARKS

Reconsideration in view of the following discussion is respectfully requested.

The Rejection of Claims 7 and 15

Claims 7 and 15 was rejected under 35 U.S.C. §112 first paragraph for failure to provide support in the specification. It is noted that the specification discloses that the DOCSIS modem (a cable modem) is used for data communication, and that claim 7 calls out a straightforward data communication function. Thus, it is believed that one of ordinary skill in the art would be enabled by Applicants' disclosure.

Applicant further wishes to note that on page 6 of the Office Action, the Examiner states, to paraphrase, that the specification does not reasonably convey claim 7 to those skilled in the art because it does not convey that the DOCSIS modem receives requested data using an out of band channel. However, on page 11, the Examiner takes Official Notice of the very fact that cable modems exist which utilize an out-of-band channel to receive requested information in order to reject the very same claim!

Nevertheless, the Examiner's attention is directed to page 14, lines 16-21 which explicitly discloses that the content associated with a URL is downloaded via the DOCSIS modem (which as the examiner states, and those skilled in the art will know is a type of cable modem). To assure explicit basis for the claim, claim 7 is amended to more broadly call for the content to be downloaded via a cable modem. This is clearly supported as noted above. Reconsideration is respectfully requested.

Claim 15 has been amended to recite that the cache memory is an additional cache memory, consistent with the Examiner's interpretation for examination. Reconsideration is respectfully requested.

The Double Patenting Objection Between Claims 3 and 17

Applicants have reviewed the claims involved and agrees that there is little substantive difference in the subject matter covered. Accordingly, claim 3 has been cancelled in favor of the independent claim 17. Applicants commend the Examiner for

recognizing this somewhat difficult to spot inadvertent error in the claims and appreciate his conscientious efforts.

The Objection to claim 23

Applicant has amended claim 23 as suggested by the Examiner to correct the typographical error.

The Examiner's Response to Arguments (Section 2) And the Leak Reference Regarding the second paragraph:

Applicants agree with the Examiner's characterization of Leak in this paragraph. Applicants characterization on page 13 of the response dated 12/21/2004 are consistent with the Examiner's characterization. Applicants further note that the characterization on the first full paragraph of page 14 of the same response (which is believed to be the characterization responsible for the Examiner's response in the second paragraph) - is inaccurate with regards to the operation of receivers in Leak which are able to connect to the Internet. Applicants regret this inaccurate characterization.

Regarding the third paragraph:

Applicants stand by their position, and offer the following in the way of further explanation thereof:

1) Leak's Trigger Is Not Necessarily, and Certainly Not Exclusively a URL

It is noted that Leak's "trigger" differs from a URL and does not necessarily even contain a URL (thus how could searching for a trigger = searching for a URL). According to the Leak's specification (including the incorporated Zigmond reference), Leak's trigger may contain any of the following: 1) a connected content/disconnected content attribute (col. 3, lines 20-27); 2) a connected content trigger, if executed by the receiver, requires connection to a remote information store (which could possibly be the Internet, or could possibly be a server) (col. 4., lines 19-35); 3) a disconnected content trigger does not require connection to a remote information store (col. 4, lines 35-39); 4) an indication that content is to be pre-fetched by a relay station from the Internet (col. 3, lines 51-63); 5) a

S/N 09/760,579

-9-

signal that "triggers" an enhancement to the receiver unit (col. 3, lines 51-63); 6) a script string (col. 5, lines 11-24); 7) a checksum (col. 5, lines 11-24); 8) a URL or a URN (col. 5, lines 11-24), note that the claims call for the trigger to "identify Internet content", which may not involve an embedded URL. Zigmond '392 indicates that the content may be identified by a file name that contains a URL; 9) connected content/disconnected content attribute can indicate degree to which execution may entail Internet communication (col. 6, lines 47-50); 10) a trigger may solicit an order for an item, display an icon on the screen, query a user if he wishes to place an order, retrieve an order form using a URI, (col. 8, lines 26-51); 11) a name attribute (col. 10, lines 44-47); 12) a tag that distinguishes between a first and second of a pair of related triggers (col. 10, lines 40-44); 13) an expiration time (col. 8, lines 31-33 of Zigmond '392). It is believed likely that even more elements of the trigger are disclosed in either Leak or one of the incorporated documents.

Thus, scanning content for a URL is clearly different from Leak's detection of a trigger.

2) Leak's Trigger Is Sent on a Separate VBI Channel. Thus, Leak Doesn't Find the Triggers By Scanning the Content, Leak Simply Reads Data On the VBI Channel

The Examiner has correctly indicated that Leak incorporates Zigmond '392 by reference. Leak indicates, and Zigmond '392 (corresponding to S/N 09/295,436) clearly indicates, that triggers are broadcast to the receiver using available bandwidth from the vertical blanking interval (VBI) as a one way broadcast communication channel. Accordingly, Zigmond and Leak both teach at most receiving and examining data transmitted over certain VBI channels for triggers which might contain a URL.

While not previously explicitly claimed as such, Applicants' embodiments are directed toward digital television signals. One skilled in the art will understand this from the description of the digital television set-top box of Fig. 2. Thus, the content is digitally transmitted as a digital transport stream (e.g., using MPEG encoding) as explained in the specification. The claims have been amended to reflect that the service provider is a digital television service provider.

In view of the difference in operation of Leak and the requirements of the claims, there exists no need to separately define the term "scanning" as implied by the Office Action. The plain meaning of the term in context used in the claims is believed adequate to distinguish over the cited art. Applicant means that the digital transport stream associated with a particular program is "scanned" or searched for a URL.

It is submitted that an ordinary dictionary definition of the term "scanning" is suitable for defining the operation carried out in the manner characterized by Applicant's claims. Applicant uses the term to mean "to examine closely", "to look over rapidly but thoroughly by moving from one point to the other" and "to search ... automatically for specific data", as defined in Webster's New College Dictionary, 1995, Houghton Mifflin Company.

There is in fact no scanning of the content per se in Leak, only reception of data in the VBI channels. There is no need to scan content to find triggers in Leak, since Leak knows exactly where the triggers will be found - in a VBI channel - and thus no searching or scanning are needed. Thus, there is no teaching or suggestion of scanning the content for a URL in Leak or Zigmond.

3) The Examiner has mis-characterized Applicant's Arguments

Applicant wishes to note that the Examiner has mis-characterized one of Applicant's arguments by stating "As set forth by the applicant, the Leak reference looks for triggers which contain a URL." This is an inaccurate characterization of both Leak and Applicant's statements regarding Leak. Applicant actually stated "Leak looks for triggers in the television signal, some of which might contain URLs" (emphasis added). There is a quite significant difference between Applicant's statements and the Examiner's characterization of them. However, to be more precise, Applicant asserts that an accurate characterization of Leak is that Leak receives triggers in a VBI channel of an analog television signal. Thus, it is clear that there is not need for Leak to "scan" the content to find the trigger. Leak's device simply receives data in the VBI channel; no operation that meets the requirement of "scanning the content for a URL" is carried out.

Let us consider the following hypothetical possibilities that highlight the clear distinctions. Let us assume that one segment of content contains the following elements:

S/N 09/760,579

-11-

1) a URL separate and distinct from any trigger; 2) a trigger which contains a URL; 3) a trigger which does not contain a URL; 4) a URL transmitted as an embedded video image; 5) spoken word transcribed as a URL in closed caption data; and 6) URL appearing in a subtitle. Now consider and compare the results of Leak's operation versus a comprehensive embodiment of Applicants scanning the content for a URL as tabulated below:

Element of content	Results of Leak	Results of Applicant ¹
a URL separate and distinct from any trigger	does not receive URL because it is not part of a trigger in a specific VBI channel	Finds URL
a trigger which contains a URL	Receives trigger containing URL	Finds URL if Trigger forms a part of the content, but if not, does not find the URL
a trigger which does not contain a URL	Receives trigger which doesn't contain URL	Does not find URL (none to find, and not looking for a trigger)
a URL transmitted as an embedded video image	does not receive URL because it is not part of a trigger in a specific VBI channel	Finds URL
spoken word transcribed as a URL in closed caption data	does not receive URL because it is not part of a trigger in a specific VBI channel	Finds URL
URL appearing in a subtitle	does not receive URL because it is not part of a trigger in a specific VBI channel	Finds URL

¹ This table presumes an embodiment of Applicants invention which carries out a fully comprehensive scan of all content and data associated therewith. Certain discrepancies may exist between this table and certain actual commercial embodiments within the scope of the invention.

The Examiner submits as his position that Leak's "system, in connection with looking for the 'triggers', is also searching for or looking for or 'scanning' for URLs associated with the 'triggers' in order to determine what associated information or web based content needs to be retrieved." Applicant submits that Leak's teachings as illustrated in the above examples establish that Leak is simply receiving a trigger. There is no scanning taught or suggested, otherwise the results would not be so completely different from Applicants' results.

Regarding the fourth paragraph:

Applicants' position in the response of 12/21/2005 was that *prima facie* unpatentability has not been established, at least for failure disclose the cache. Applicants appreciate that in the Examiner's opinion there must be a cache, but without a disclosure of such, the Examiner failed to establish that the claims were either anticipated or obviated. It is respectfully submitted that it was and remains the Examiner's burden to establish that Leak in fact has a cache if that is the Examiner's position in making a rejection.

Applicants had no burden of proof with regard to how Leak could operate without a cache - Leak may be inoperative or may operate in some manner other than by use of a cache. Despite this lack of burden, Applicants submit that any caching that might be done by Leak does not meet the claim limitations since Leak does not "mirror" the content to the cache (the content is substantially altered by transcoding prior to caching). Thus, Leak may for example, use a cache which is not a mirror cache (see discussion of Mingdoll below, which also relates to WebTV™).

Regarding Applicants' disclosure of Page 12 of the specification, the alleged definition of cache provided must be considered in it's entirety. To clarify the record, the statement is not a definition of cache, but is intended to assure that any suitable memory device can used to implement the cache.

Regarding the fifth paragraph:

Applicants note that, as will be explained further, the claims call for mirroring and the fact that the documents are extensively transcoded in Mingdoll prior to storage precludes the claims from reading on Mingdoll.

Regarding the Mingdoll Patent

The Office Action asserts that Mingdoll discloses "*retrieving the mirrored content associated with the URL from the cache memory upon receipt of the request*" as called out, for example, by claim 1. However, while Mingdoll provides a caching function, he does not carry out a "mirroring" function. A mirroring function as called for by the claims by definition requires that the same content is stored in the headend as that retrieved from the Internet. However, the proxy cache 65 of Mingdoll stores a heavily transcoded version of content retrieved from the Internet (col. 5, lines 10-15 and col. 7, line 6 through col. 11, line 40 - note that the transcoding requires nearly four columns of explanation). This transcoded version of the content cannot be considered to be mirrored because of the substantial modifications made in the transcoding process. The transcoded content is likely unusable by any device other than those of Mingdoll. The claims as filed call for the content to be mirrored at the service provider headend, and the mirrored content delivered to the subscriber. Mingdoll does neither.

Additionally, the claims now call for the mirroring to be carried out at a digital television service provider. Mingdoll neither teaches nor suggests that Internet content should be mirrored in a cache at a digital television service provider. This is neither taught nor suggested by any of the art, since the caching of the cited art is carried out at an Internet service provider in support of the special transcoding requirements of the WebTV™ terminal.

Proposed Claim Amendments

While Applicants feel that the claims as amended on 12/21/2004 distinguish over the Leak reference, Applicants recognize that the Examiner is charged with the duty to interpret the claims as broadly as the language might reasonably permit. Accordingly,

S/N 09/760,579

-14-

Applicants have made several amendments to the claims in the present response. It is believed appropriate to enter such amendments. The claims have been amended to call for the service provider to be a digital television service provider. It is noted that the WebTV™ service and system of Leak (as well as the other references and the commercial service) does not provide television services. The WebTV™ service provides Internet services which happen to use a television display to serve as a computer display and a television transmission as a transport medium to transmit triggers. Note that the WebTV™ servers (e.g., 5) of Mingdoll are connected via modem to the WebTV™ clients. By limiting the service provider to a digital television service provider, the claims are believed to further distinguish over the cited art since the WebTV™ servers of Mingdoll are not digital television service providers. Since the earlier language was somewhat broader, it is submitted that further search is likely unnecessary, and certainly not overly burdensome.

Interview Request

Applicants are open to making further reasonable amendments to the claim language that will satisfy the Examiner that the language is clearly distinguished over the cited art. Applicants further recognize that the current Office Action has been deemed Final by the Examiner, but will be happy to file an RCE with suitable amendments. Accordingly, Applicants respectfully request the courtesy of an interview in order to 1) clarify any remaining issues; 2) establish what, if any, amendments are to be made upon submission of an RCE, thus expediting closure of this matter.

Concluding Remarks

The undersigned additionally notes that other distinctions exist between the cited references and the invention as claimed. However, in view of the above-noted deficiencies in the art as pointed out above, and the above amendments, further discussion of these distinctions is believed to be unnecessary at this time. Failure to address each point raised in the Office Action should accordingly not be viewed as accession to the Examiner's position.

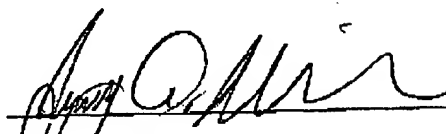
S/N 09/760,579

-15-

In view of this communication, all claims are now believed to be in condition for allowance and such is respectfully requested at an early date.

Respectfully submitted,

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S/N 09/760,579

-16-